

# **A Revenue Opportunity without a Tax Increase**

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NCSL Legislative Summit, San Antonio, Texas  
August 10, 2011**

# Automated Sales Suppression

Skimming cash sales – a very old tax fraud

- Double tills
- Phantomware
- Zappers
- Next generation

# What do you lose?

- Sales tax
- Business Income tax
- Personal Income tax
- Wage taxes
- ..... And more .....

# Where are you losing it?

- Restaurants
- Convenience stores
- Entertainment venues
- Anyplace with high volume cash transactions

## How much are we losing? (Tax Revenues Lost)

- Check the handout

# Who is the “bad guy?”

- Choose one:
  - (1) ECR/POS maker
  - (2) Business owner
  - (3) Installer
- You need to know this when you draft the law

# Track record so far

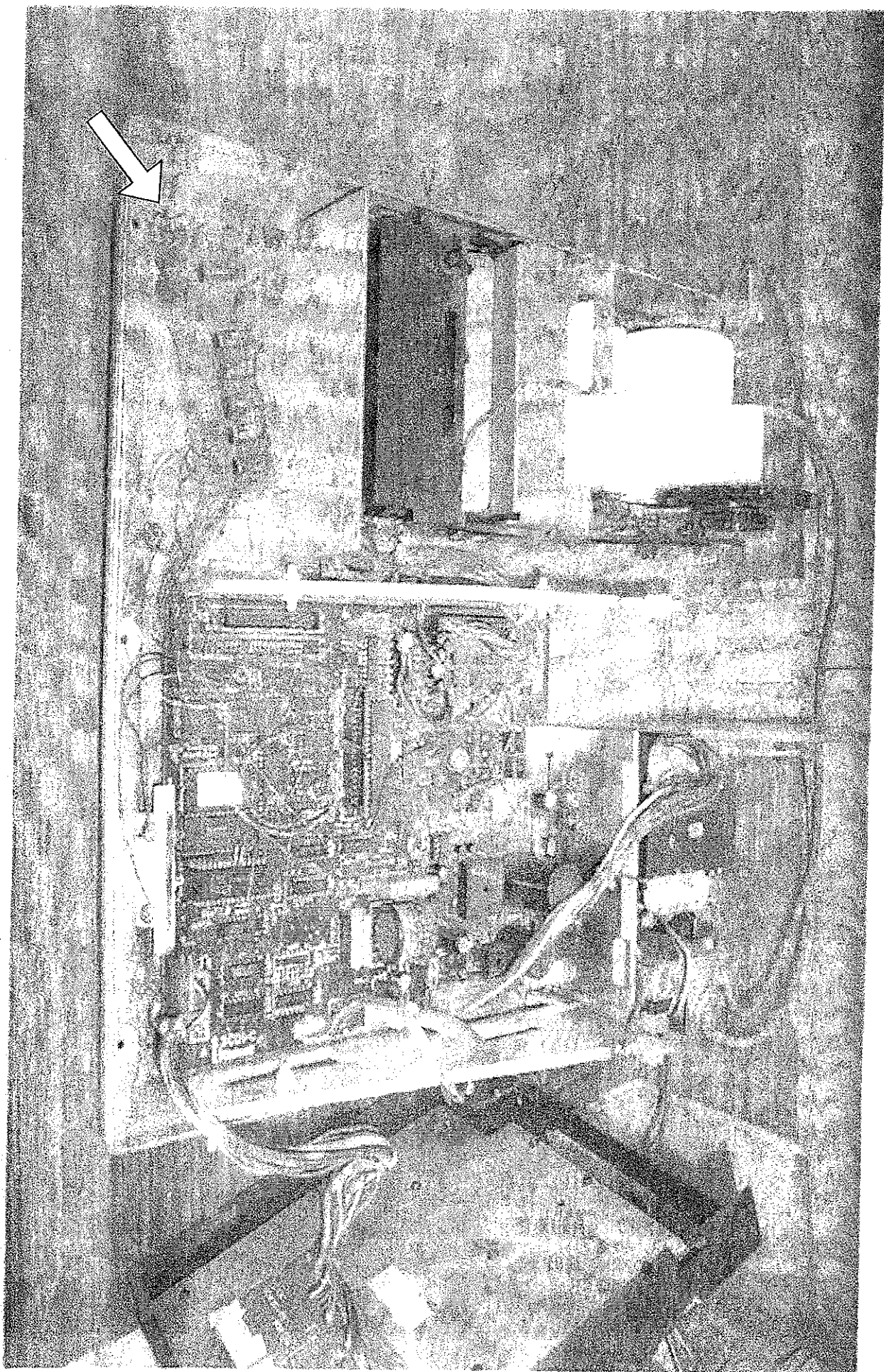
- Connecticut:
  - Stew Leonard's Dairy [\$17 million – 10 years – 1981-91]
- Michigan:
  - Lashish Restaurants [\$20 million – 4 years]
  - Installer: Theodore R. Kramer [\$500,000 – 2 strip clubs]
    - Sentencing March 15, 2011
- New York; Massachusetts; Washington; Georgia; Hawaii; Puerto Rico ... (maybe)...
- Quebec
  - In excess of 250 (litigated) cases

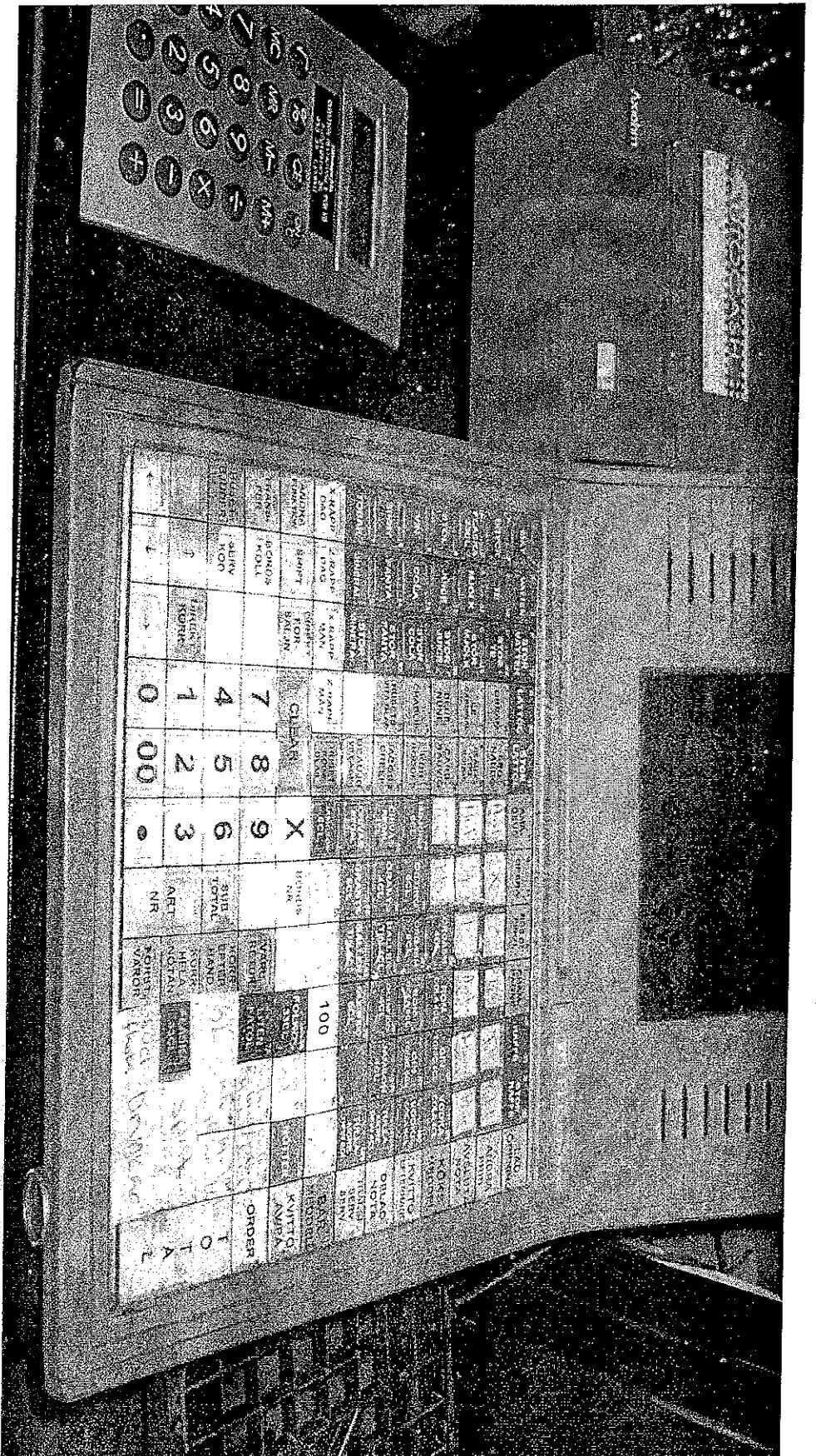
# PICTURES

Ax

- The next slides show a Zapper –  
borrowed from Quebec and Sweden
- s
- ..... And more .....







## TT PI Electronique – cash register

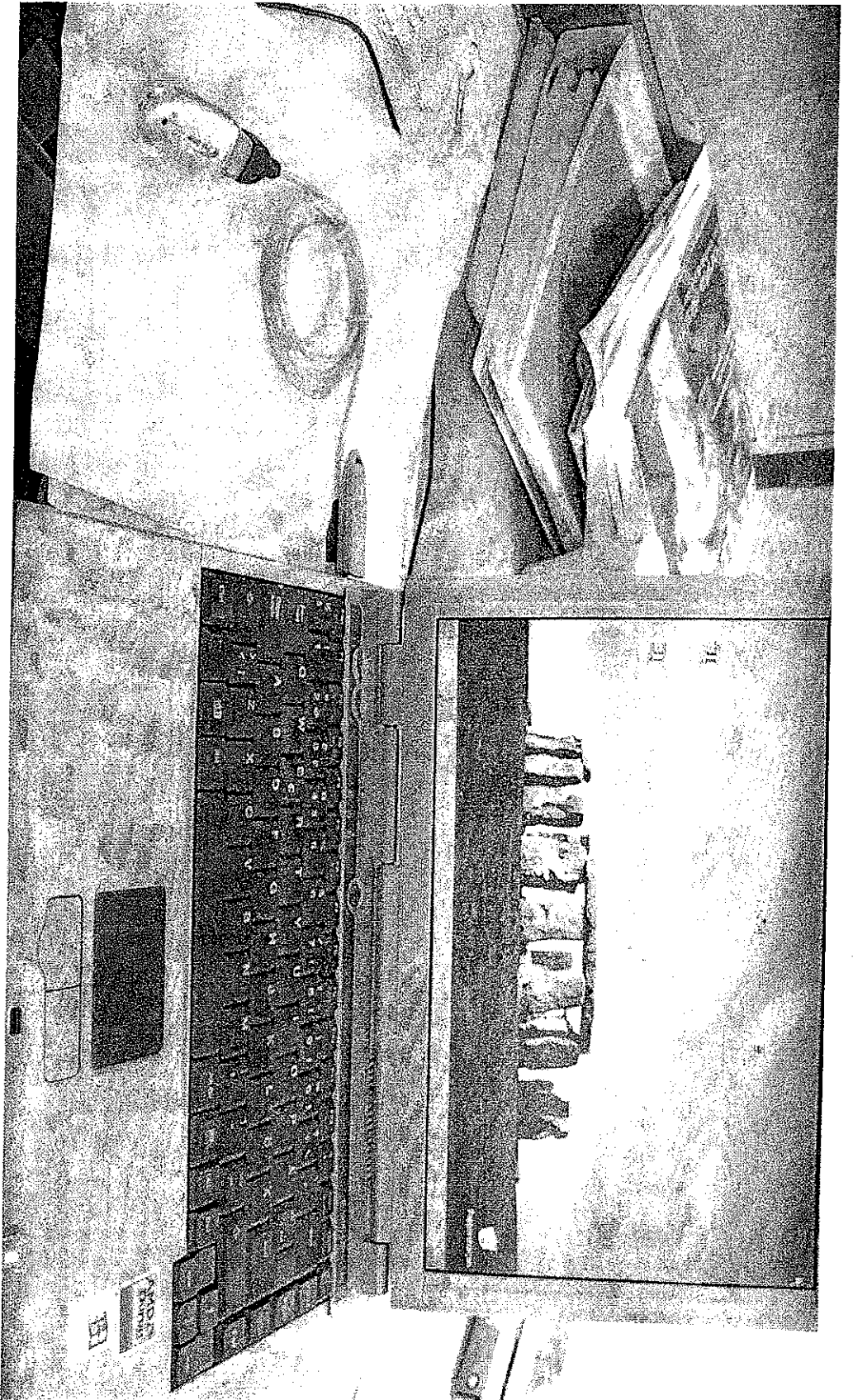
Manufactured in Paris (since 1983)

Popular in Italy, Belgium, Portugal, Spain, Germany, Denmark, Australia, USA and North Africa.

Uses "Restodata" back-office program

Cash register is connected to a PC (in the back office) like the one on the following slide.





## Back-Office PC

Notice the "dongle" (grey memory stick) protecting proprietary program

Notice the silver memory stick – this is the "zapper"

Restodata is programmed to automatically download all information about all transactions from all cash registers every morning at (for example) 5:00 am

**So, before manipulation here is the  
electronic journal  
the sales report  
the sales receipt**

AS

----- 208

TEL

ORG NR

2006-10-05 15:02:41  
--> 2005-03-11 23:59

ELECTRONIC JOURNAL DISKRIPT -

- 2005-03-11 00:00

Mr Name

Ant SUM

21 LUNCH B

1

65,00

2

1 KONSTANT

MONS 256

1 65,00  
1 13,00

TOTAL KVVITTO

3

65,00

DIREKT

Board NR:0

2005-03-11 11:13

POS number:1  
CASH ANT:1

KVLECO NR:000002/1

Myr nr:1

Servic NR:1

23 LUNCH BUFFE

1 68,00

1 KONSTANT

MONS 256

1 68,00  
1 13,60

## Electronic Journal (before manipulation)

1. Item number 21 is a Lunch B
2. It cost 65,00 kroner
3. The receipt is number 2/1

CBS NL

AS

*För-s-pet family*

2005-03-11 till 2005-03-11

Varuslag	Sum
Unknown family	693,00 kr
AVHÅMTNING	1 701,01 kr
DRINK	340,00 kr
DRYCK	1 026,00 kr
MAT	19 981,00 kr
SPRIT	669,00 kr
STARKÖL	13 492,00 kr
VIN	3 144,00 kr
TOTAL	41 046,01 kr

Out of SALES :

Rebatt :

0,00 kr  
-209,70 kr

## Sales Report (before manipulation)

We need this for comparison later

100120050311.TIC - Anteckningar

Arkiv Redigera Format Visa Hjälp

A	21	1	1	6500H	2
R	1		1	6500I	
X	1		1	1300P	
C	0		2	0G	
D	0	1	1	11	
-	1103051113000002/1				3
E					650007670006001H
A	23		1	6800G	
R	1		1	6800D	
X	1		1	1360B	
C	0		2	0G	
D	0	1	1	1L	
-	1103051120000003/1				
E					680007676006001H

### Sales receipt (before manipulation)

These are in the ".TIC" files (for "tickets"). Notice:

1. Item number 21
2. Sales price of 65,00 kroner
3. Ticket number (receipt number) 2/1

**To manipulate the data you insert  
the zapper (silver memory stick)**

**There is a new version of the  
CMDCAR.DLL program on the zapper**



Utskrift av journal

Android

Restaurang

POS nr

Criteria number

Filter på

Kvitto med

Retur

Hushållsunder

Rebrett

Korrigering av kvitto

Kvitto korrigerat

Korrigering artikel

Kvitto datum från

Mellan

och

Kvitto Tid från

Mellan

och

2005-03-11

2005-03-11

00:00

23:59

00:00

23:59

Avsluta

Bill Total

Mellan

0

och

Beläning

All

användar ID

Password

OK

Avbryt

Skapa kvitto

Unselect

Goet Kortion

Unselect

15:05

## Double-Click on the secret module

It is not all that apparent what you need to do here, but by double clicking in the box in the lower left, entering an ID and a password, you will get to the next screen – the Electronic Journal (which can be adjusted).



Restaurant

POS Nb:

Wafers:

Change password



2 CAFE 2  
3 SERV 3  
4 SERV 4  
5 SERV 5

Date 2005-03-11 au 2005-03-11

Bill Total Uppe to 0

Receipt time  
Entre 00.00 ocl 23.58

Articles a exclure: 0

List of tickets paid in cash

Date	Time	Nb ticket	POS	Wait	Type	Amount	Replaced by	Total removed
05-03-11	11:13	000002/1	1	1	Dirxkt	65,00 kr		
05-03-11	11:20	000003/1	1	1	Dirxkt	60,00 kr		
05-03-11	11:30	000004/1	1	1	Dirxkt	60,00 kr		
05-03-11	11:35	000005/1	1	1	Dirxkt	136,00 kr		
05-03-11	11:44	000006/1	1	1	Dirxkt	76,00 kr		
05-03-11	11:46	000007/1	1	1	Dirxkt	136,00 kr		
05-03-11	11:48	010001/2	1	1	Bord	45,00 kr		
05-03-11	11:49	000008/1	1	1	Dirxkt	68,00 kr		
05-03-11	11:54	000010/1	1	1	Dirxkt	68,00 kr		
05-03-11	11:55	000011/1	1	1	Dirxkt	68,00 kr		
05-03-11	11:55	000012/1	1	1	Dirxkt	130,00 kr		
05-03-11	11:55	000013/1	1	1	Dirxkt	35,00 kr		
05-03-11	11:56	000014/1	1	1	Dirxkt	68,00 kr		
05-03-11	11:56	000015/1	1	1	Dirxkt	65,00 kr		
05-03-11	11:57	000016/1	1	1	Dirxkt	73,00 kr		
05-03-11	11:58	000017/1	1	1	Dirxkt	136,00 kr		
05-03-11	11:59	000018/1	1	1	Dirxkt	65,00 kr		
05-03-11	12:04	000019/1	1	1	Dirxkt	65,00 kr		

Select the tickets to replace in the list

Manual selecting of replacement tickets

Total Sales:

40 836,31 kr

Total P Total:

000,00

Total Gross:

40 836,31 kr

Amount to remove:

Threshold amount:

100

## "Manipulate-able" Electronic Journal

Notice that we can either

- (1) select a ticket to adjust, or
- (2) auto-replace

So, assume we take the selection of a ticket approach ... (1),  
When we select the first item (ticket number 2/1) we then get ...

Notice the price reduction (we could have gone lower) – Notice the tax reduction  
The Swedish VAT is at 25%



Change

Restaurant

POS NB

Walters

 2 CAFE 2  
 3 SERV 3  
 4 SERV 4  
 5 SERV 5

Change password

End

Date

2005-03-11

au

2005-03-11

13:59

Bill Total

Upper to 0

Receipt time

Entire 100:00

och 23:59

List of tickets paid in cash

Replacement tickets

Articles à exclure: 0

Date	Time	Nb. ticket	POS	Maté	Type	Amount	Replaced by	Total removed
05-03-11	11:20	000002/1	1	1	Direkt	65,00 kr	45,00 kr	20,00 kr
05-03-11	11:30	000004/1	1	1	Direkt	65,00 kr		
05-03-11	11:35	000005/1	1	1	Direkt	136,00 kr		
05-03-11	11:44	000006/1	1	1	Direkt	76,00 kr		
05-03-11	11:46	000007/1	1	1	Direkt	136,00 kr		
05-03-11	11:48	010001/2	1	1	Board	45,00 kr		
05-03-11	11:49	000008/1	1	1	Direkt	68,00 kr		
05-03-11	11:54	000010/1	1	1	Direkt	68,00 kr		
05-03-11	11:55	000011/1	1	1	Direkt	68,00 kr		
05-03-11	11:55	000012/1	1	1	Direkt	130,00 kr		
05-03-11	11:55	000013/1	1	1	Direkt	35,00 kr		
05-03-11	11:55	000014/1	1	1	Direkt	68,00 kr		
05-03-11	11:56	000015/1	1	1	Direkt	65,00 kr		
05-03-11	11:57	000016/1	1	1	Direkt	73,00 kr		
05-03-11	11:58	000017/1	1	1	Direkt	136,00 kr		
05-03-11	11:59	000018/1	1	1	Direkt	65,00 kr		
05-03-11	12:04	000019/1	1	1	Direkt	65,00 kr		

Total Sales: 40 838,31 kr

Amount to remove:

Total/F Total: 20,00 kr

Total Gross: 40 818,31 kr

Analyse

Replace auto

Threshold amount: 100

Manual selecting of replacement tickets

Validate

## Manipulated Electronic Journal (pro-forma)

Here is what we have done so far – is this enough manipulation?

Ticket 2/1 has been changed from 65,00 to 45,00 with a reduction of 20,00 on this ticket

There is a running total kept (in case you want to remove more)

Mr Name

Ant

SUM

21 → LUNCH B

1 KONTANT

MOMS 25%

Original

1 65,00  
1 65,00  
1 13,00

TOTAL KVITTO

Direkt

Bord NR:0

2005-03-11 11:13

POS number:1

C&ST ANT:1

Kvitto NR:000002/1

Myk nr:1

Servic NR:1

65,00

Mr Name

Ant

SUM

334 FLASKÖL SOCL

1 KONTANT

MOMS 25%

Manipulated

1 45,00  
1 45,00  
1 9,00

TOTAL KVITTO

Direkt

Bord NR:0

2005-03-11 11:13

POS number:1

C&ST ANT:1

Kvitto NR:000002/1

Myk nr:1

Servic NR:1

45,00

## Comparison: Original & Manipulated Electronic Journal

Notice the reduction in gross sales & the reduction in tax.

If this record is tied into inventory control, adjustments in related purchases will be necessary [some zappers will do this for you] because you may have just "sold" more beer than you ordered



A	334	1	4500?
R	1	1	4500?
X	1	1	900?
C	0	2	0G
D	0	1	1 1L
-1103051113000002/1			45000767000600.H
F			
A	23	1	6800G
R	1	1	6800D
X	1	1	1360B
C	0	2	0G
D	0	1	1 1L
-11030511120000003/1			68000767600600.N

Manipulated

A	21	1	6500H
R	1	1	6500I
X	1	1	1300P
C	0	2	0G
D	0	1	1 1L
-1103051113000002/1			650007670006001H

Original

## Comparison of the TIC-files – Manipulated & Original

Notice the “?” in the Manipulated version in contrast with the letters “H”, “I” & “P” in the original version. This one of the tell-tale signs of manipulation in this particular program. It may indicate that the system has not been correctly updated since the manipulation procedure.

# How to read more?

- Google ----- “Ainsworth + Zapper”
- Richard T. Ainsworth
  - Boston University School of Law: Graduate Tax
  - ADP (International) Government Affairs
  - [vatprof@bu.edu](mailto:vatprof@bu.edu)
  - [Richard\\_Ainsworth@adp.com](mailto:Richard_Ainsworth@adp.com)





# **FINDING ZAPPERS: Technology-assisted sales suppression**

**Richard T. Ainsworth**

**Massachusetts DOR**

**October 19, 2009**

# Two US Zapper Cases

See: Zappers: Tax Fraud, Technology and Terrorist Funding

- **Stew Leonard's Dairy (Norwalk, CT) - 1994**
  - Custom made zapper (former NCR IT expert)
  - Zapper is kept in a hollowed out book in office
  - \$17m (IRS income tax audit) – Customs uncovered
- **Lashish restaurants (Detroit, MI) – 2007**
  - Zapper kept at owner's residence connected to ECRs at 13 restaurants
  - Skim \$20m (4 years) sent to Hezbollah (Lebanon)
  - CIA mole (sister-in-law); wife in prison
  - Husband is fugitive from US (in Lebanon)

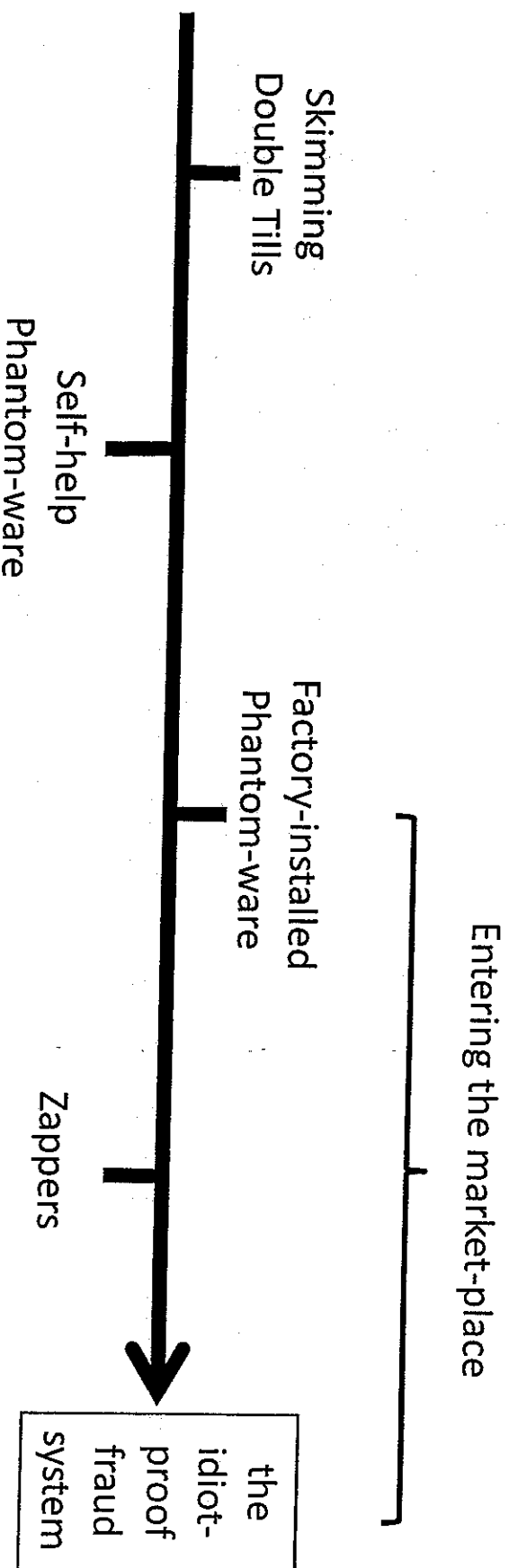
# INDEX

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- Theme: Market-place
- Phantom-ware:
  - Self-help
  - Factory Installed
- Want to see the Zappers?
  - Stupid Zapper
  - Contemporary Zapper
  - Future Zapper
- How to find sales suppression devices
- What to do when you find them

# Estimated Losses & Efforts Undertaken

1. Estimated tax losses [restaurant industry only]
  - Massachusetts:
    - GDP = 143% of Quebec
    - \$608 million
2. Other states:
  - California \$2.8b
  - New York \$1.7b
3. New York & Quebec are working together
4. MA is working with New York & has contacted CT

# Development Time Line



## THE COMPETITIVE MARKET-PLACE

Greece – 10m people; 800,000 SMEs; 300,000 to 350,000 ECRs and POS systems; turnover of 30,000 to 40,000 systems per year; 300+ different machines (all certified); 50 importers and manufacturers – Germany & Italy (EU); USA, Japan, China (non-EU).

# Theme: Market-place

Skimming is an SME issue not LMSB issue

(1) Skimming has been an individual fraud issue,  
not a market-place issue

(2) Phantom-ware applications show skimming  
entering the market-place:

- Self-help phantom-ware
- Factory-installed phantom-ware

(3) Zappers developed next

- Installers, rogue developers, smaller developers

(4) Internet based programs

# Phantom-ware

There are two types:

Self-help

Factory installed

# Type 1 –

## Self-help Phantom-ware

- Modern ECRs can be re-programmed to eliminate the audit trail (critical records)
  - Z Reports (daily/periodic) – end of day report that records sales, taxes, media totals, discounts, voids, etc.
  - X Reports – same as Z Reports except they do not “reset” the system after being taken.
  - Electronic Journal – records all transactions (blow-by-blow) entered in the machine
- Programming is “secret” (not in user’s manual) – limit access [bad employee issues]



# Examples of “Hidden Functions”

- Sales Data Reset:
  - Resets all sales data on the terminal to zero
- Turn Off Journal/ Turn On Journal:
  - Electronic journal can be set to not function
- Master Reset:
  - Clears out the entire memory of the till and brings it back to a blank default program – the till then determines which terminal it is by looking at others on the LAN and then prompts to import its program from one of the other terminals on the LAN

# Example: CASIO TE-2000

See: Zappers & Phantom-Ware: A Global Demand for Tax Fraud Technology

- *Cash Register Good Practice Guide*
  - EU Cash Register Study Group
    - Part of the Fiscalis Committee
- Use of a refund to skim cash - HMRC
  - Re-program Z Report not to record refunds
  - Re-program X Reports not to record refunds
  - Eliminate refunds from the Electronic Journal
- Thus, the ECR nets refund against a sale, and records only a lower (net) sale amount, without a trace in Z Report, X Report, or Electronic Journal

## Type 2 –

### Factory installed Phantom-ware

- Does not require re-programming
- Secret (hidden) functionality built in to ECR
  - Not discussed in user's manual
  - Not visible in menu structure
  - Commonly revealed only in oral communications with
    - » Installer
    - » Sales representative
- The idea is to remove the need to re-program
  - Manufacturer looses “deniability”
  - These programs have only one function

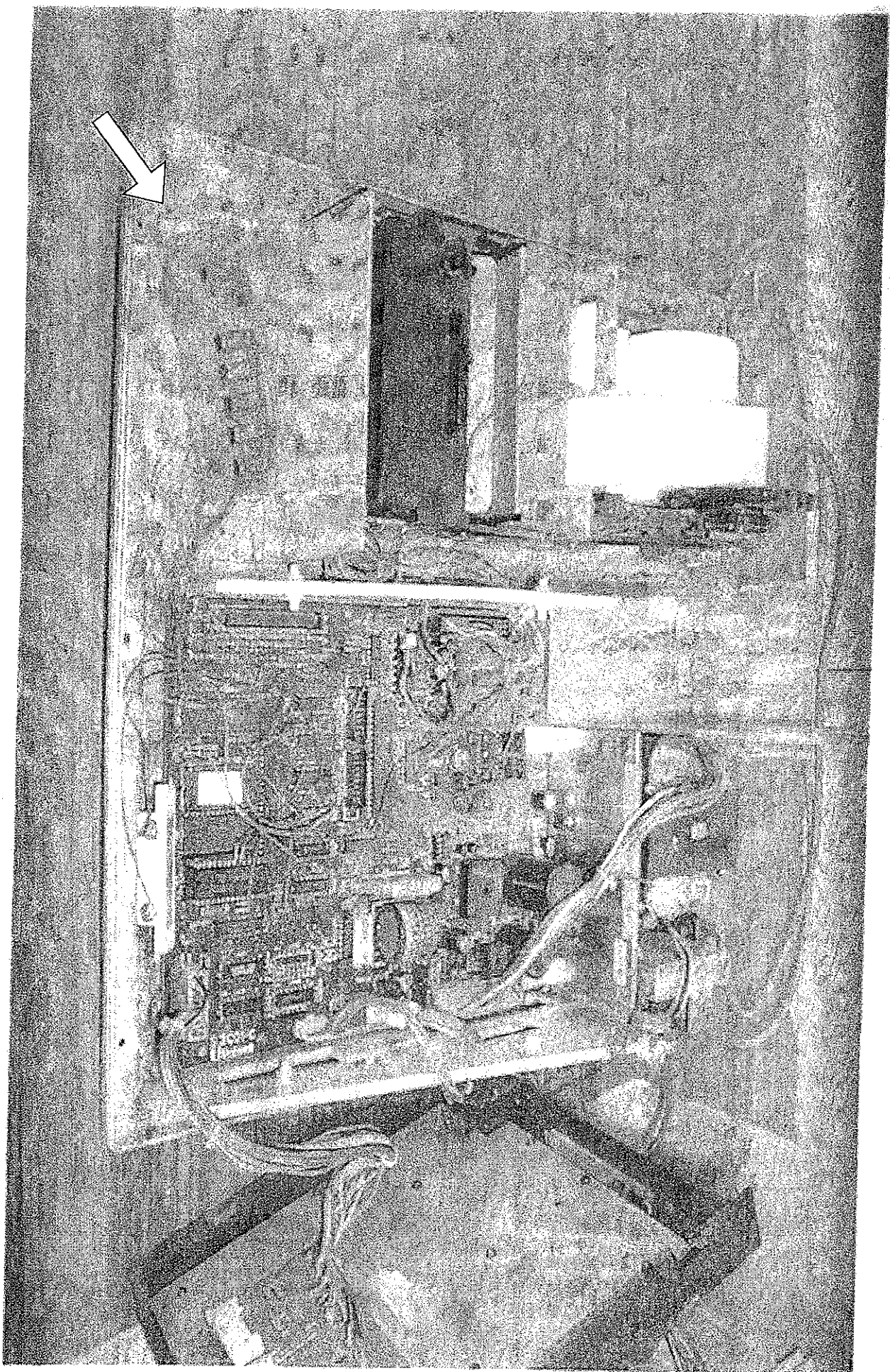
# Zappers

There are three generations

# Meet the Stupid Zapper

# Quebec Zapper

- This is an old Zapper. It has been “hard wired” into the ECR. The picture shows the top of the ECR removed, and the yellow arrow points to the device.
- When Zappers are added to ECRs this way it is very easy to find them.
- People only do it this way in jurisdictions that are not looking for them.

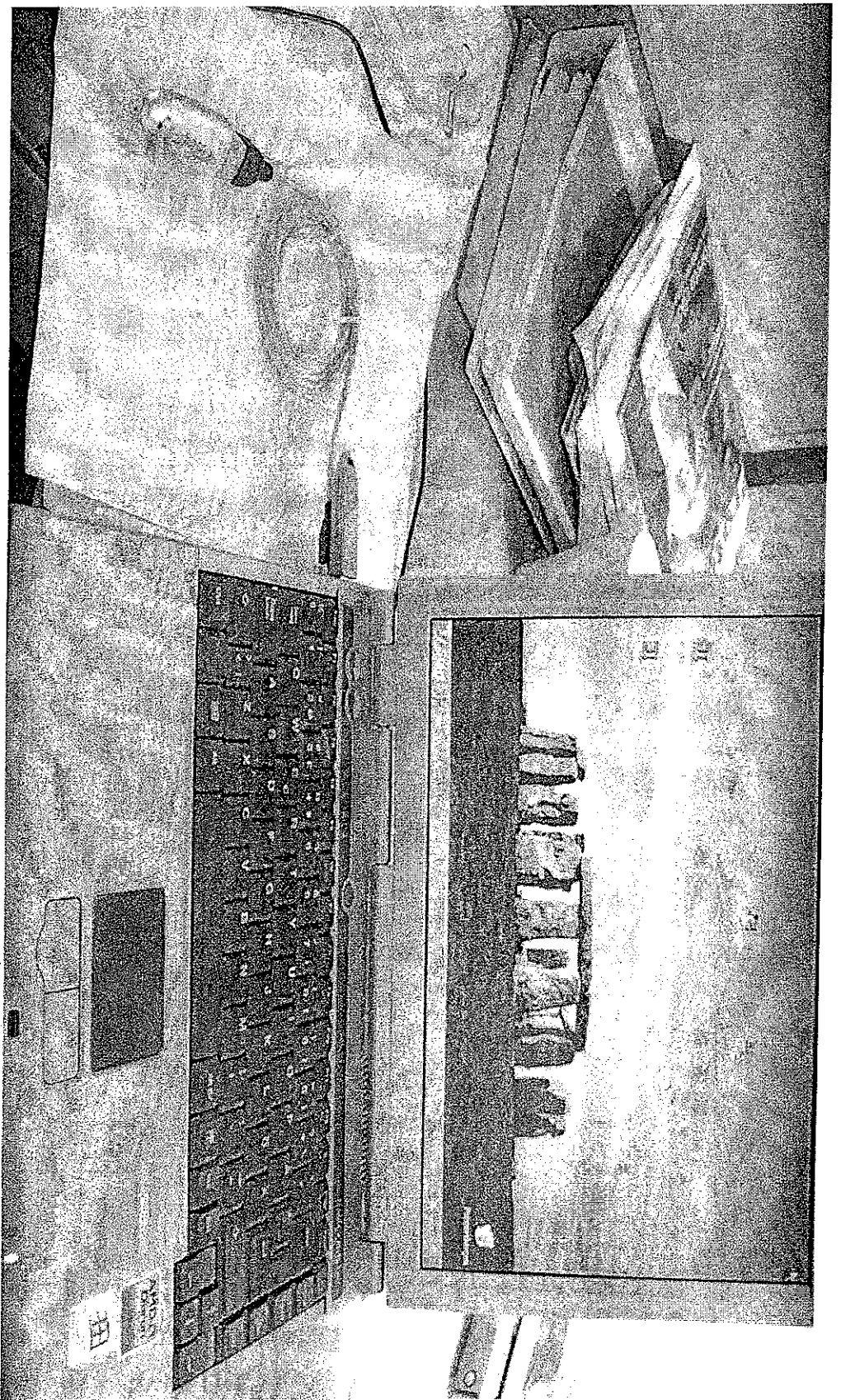


# Meet the Contemporary Zapper

Note: this Swedish zapper requires a lot of manual intervention. There are more automated [idiot-proof] zappers out there. If the user is not careful with this zapper traces of the original data will be left behind and auditors can find it (if they know what to look for).







## Back-Office PC

Notice the "dongle" (grey memory stick) protecting proprietary program

Notice the silver memory stick – this is the "zapper"

Restodata is programmed to automatically download all information about all transactions from all cash registers every morning at (for example) 5:00 am

**So, before manipulation here is the  
electronic journal  
the sales report  
the sales receipt**

2005-10-05 15:02:41  
 2005-03-11 23:59  
 2005-03-11 00:00

ORG NR 208  
 (TBL)

ELECTRONIC JOURNAL UTFRIFT

NR	Memor	Amo	SUM
21	LUNCH B	1	65,00
1	KONTANT	1	65,00
	MOMS 25%	1	13,00
			65,00
TOTAL KUTTO		3	
Direkt			
Bord NR: 0			
2005-03-11 11:13			
POS nummer 1			
Gäst ART: 1			
Kvitto NR: 000002/1			
Service NR: 1			
23	LUNCH BURE	1	65,00
1	KONTANT	1	65,00
	MOMS 25%	1	13,60

## Electronic Journal (before manipulation)

1. Item number 21 is a Lunch B
2. It cost 65,00 kroner
3. The receipt is number 2/1

ORD. NO.

AS

*For Super Family*

2005-03-11 THU 2005-03-11

Item	Sum
Unknown family	693,00 kr
AVHÅMTNING	1 701,01 kr
DRINK	340,00 kr
DRYCK	1 026,00 kr
MAT	19 981,00 kr
SPRT	669,00 kr
STARKÖL	13 492,00 kr
VIN	3 144,00 kr
TOTAL	41 046,01 kr

Out of SALES : 0,00 kr  
Rebatt : -209,70 kr

# Sales Report (before manipulation)

We need this for comparison later



# 1000120050311.TIC - Anteckningar

Arkiv Redigera Format Visa Hjälp

A	21	1	1	6500H	2
R	1		1	6500L	
X	1		1	1300P	
C	0		2	0G	
D	0	1	1	11	
-	1103051113000002/1	3			650007670006001H
E					
A	23		1	6800G	
R	1		1	6800D	
X	1		1	1360B	
C	0		2	0G	
D	0	1	1	11	
-	1103051120000003/1				680007676006001M

## Sales receipt (before manipulation)

These are in the "TIC" files (for "tickets"). Notice:

1. Item number 21
2. Sales price of 65,00 kroner
3. Ticket number (receipt number) 2/1

**To manipulate the data you insert  
the zapper (silver memory stick)**

**There is a new version of the  
CMDCAR.DLL program on the zapper**

It is not all that apparent what you need to do here, but by double clicking in the box in the lower left, entering an ID and a password, you will get to the next screen – the Electronic Journal (which can be adjusted).



Restaurant: N 3

POS NB: N 3

Waters: 2 CAFE 2  
3 SERV 2  
4 SERV 4  
5 SERV 5

Date: 2005-03-11 11:11 au 2005-03-11 11:11

Change password

End

Bill Total: 0

Receipt time: 00:00 ocl 23:59

Articles à exclure: 0

Amount to remove: 40 836,31 kr

Threshold amount: 100

Select the tickets to replace in the list

Date	Time	Nb tickets	POS	Wait	Type	Amount	Replaced by	Total removed
05-03-11	11:13	000002/1	1	1	Direkt	65,00 kr		
05-03-11	11:20	000003/1	1	1	Direkt	69,00 kr		
05-03-11	11:30	000004/1	1	1	Direkt	60,00 kr		
05-03-11	11:35	000005/1	1	1	Direkt	196,00 kr		
05-03-11	11:44	000006/1	1	1	Direkt	76,00 kr		
05-03-11	11:46	000007/1	1	1	Direkt	136,00 kr		
05-03-11	11:48	010001/2	1	1	Boxd	45,00 kr		
05-03-11	11:49	000008/1	1	1	Direkt	68,00 kr		
05-03-11	11:54	000010/1	1	1	Direkt	68,00 kr		
05-03-11	11:55	000011/1	1	1	Direkt	68,00 kr		
05-03-11	11:55	000012/1	1	1	Direkt	190,00 kr		
05-03-11	11:55	000013/1	1	1	Direkt	35,00 kr		
05-03-11	11:56	000014/1	1	1	Direkt	68,00 kr		
05-03-11	11:56	000015/1	1	1	Direkt	65,00 kr		
05-03-11	11:57	000016/1	1	1	Direkt	73,00 kr		
05-03-11	11:58	000017/1	1	1	Direkt	136,00 kr		
05-03-11	11:59	000018/1	1	1	Direkt	65,00 kr		
05-03-11	12:04	000019/1	1	1	Direkt	65,00 kr		

Manual selecting of replacement tickets

## "Manipulate-able" Electronic Journal

Notice that we can either

- (1) select a ticket to adjust, or
- (2) auto-replace

So, assume we take the selection of a ticket approach ... (1),

When we select the first item (ticket number 2/1) we then get ...



Restaurant

POS NB

Waters

Change password


 2 CAFE 2  
 3 SERV 3  
 4 SERV 4  
 5 SERV 5

Date

2005-03-11

su

2005-03-11

Bill Total

Upperio

0

Receipt time

Entre

00:00

cash

23:59

List of tickets paid in cash

Article List

134 D	60,00 kr
233 ESPRESSO	25,00 kr
534 FAUSTINO	238,00 kr
330 FLASKÖL 33CL	35,00 kr
334 FLASKÖL 50CL	45,00 kr
341 FOLKÖL 33CL	25,00 kr
210 FYRA SMÅ RÄTTER	105,00 kr

Price level

Normal

List of replacement tickets

334 FLASKÖL 50CL	1	45,00 kr
Cash	253	45,00 kr
TOTALS		9,00 kr

Total Sales 40 838,31 kr

Total P Total 00014

Total Gross 0 838,31 kr

Amount to remove

Replace auto

Threshold amount

100

Ticket with commission

Erase Ticket

Add

Total 45,00 kr

Replacement tickets

Tickets

334 FLASKÖL 50CL

1

45,00 kr

Add

move

Replace the Lunch Buffet (65,00) – with a beer (45,00)

Notice the price reduction (we could have gone lower) – Notice the tax reduction  
 The Swedish VAT is at 25%

# Elektronisk journal



Change password

Restaurant

POS Nb

Walters

Date

2005-03-11

2005-03-11

End

All

Unselect

Bill Total

0

Receipt time

Entire 100.00 oeh 23:59

## List of tickets paid in cash

Date	Time	MP	ticket	POS	Wait	Type	Amount	Replaced by	Articles à exclure	Total removed
05-03-11	11:20	000000	1/1	1	1	Direkt	60.00 kr		0	
05-03-11	11:30	000000	1/1	1	1	Direkt	60.00 kr		0	
05-03-11	11:35	000000	5/1	1	1	Direkt	136.00 kr		0	
05-03-11	11:44	000000	6/1	1	1	Direkt	136.00 kr		0	
05-03-11	11:46	000000	7/1	1	1	Direkt	136.00 kr		0	
05-03-11	11:48	010001	1/2	1	1	Bord	45.00 kr		0	
05-03-11	11:49	000000	8/1	1	1	Direkt	68.00 kr		0	
05-03-11	11:54	000000	10/1	1	1	Direkt	68.00 kr		0	
05-03-11	11:55	000000	11/1	1	1	Direkt	68.00 kr		0	
05-03-11	11:55	000000	12/1	1	1	Direkt	130.00 kr		0	
05-03-11	11:55	000000	13/1	1	1	Direkt	35.00 kr		0	
05-03-11	11:56	000000	14/1	1	1	Direkt	68.00 kr		0	
05-03-11	11:56	000000	15/1	1	1	Direkt	65.00 kr		0	
05-03-11	11:57	000000	16/1	1	1	Direkt	73.00 kr		0	
05-03-11	11:58	000000	17/1	1	1	Direkt	136.00 kr		0	
05-03-11	11:59	000000	18/1	1	1	Direkt	65.00 kr		0	
05-03-11	12:04	000000	19/1	1	1	Direkt	65.00 kr		0	

Total Sales 40 836.31 kr

Total Gross 49 816.31 kr

Amount to remove

Manual selecting of replacement tickets

Threshold amount 100

Total Gross 49 816.31 kr

Amount to remove

Replace auto

Manual selecting of replacement tickets

Threshold amount 100

Validate

## Manipulated Electronic Journal (pro-forma)

Here is what we have done so far – is this enough manipulation?

Ticket 2/1 has been changed from 65,00 to 45,00 with a reduction of 20,00 on this ticket

There is a running total kept (in case you want to remove more)

Mr Memo

Amc

SUM

21 → LUNCH B

1 KONTANT  
MONS 25\$

Original

1 65,00  
1 65,00  
1 13,00

TOTAL RETITTO

Direkt

POS number: 1

65,00

Bord NR: 0

GAST ANT: 1

Myk nr: 1

2005-03-11 11:13

Kvitto NR: 000002/1

Servic NR: 1

Mr Memo

Amc

SUM

334 FLASKÖL SOCI

Manipulated

1 KONTANT  
MONS 25\$

1 45,00  
1 45,00  
1 9,00

TOTAL RETITTO

Direkt

POS number: 1

45,00

Bord NR: 0

GAST ANT: 1

Myk nr: 1

2005-03-11 11:13

Kvitto NR: 000002/1

Servic NR: 1

## Comparison: Original & Manipulated Electronic Journal

Notice the reduction in gross sales & the reduction in tax.

If this record is tied into inventory control, adjustments in related purchases will be necessary [some zappers will do this for you] because you may have just "sold" more beer than you ordered

A	334	1	4500?
R	1	1	4500?
X	1	1	900?
C	0	2	0G
D	0	1	1 1L
-1103051113000002/1			45000767000600.H
F			
A	23	1	6800G
R	1	1	6800D
X	1	1	1360B
C	0	2	0G
D	0	1	1 1L
-11030511120000003/1			68000767600600.N

A	21	1	6500H
R	1	1	6500I
X	1	1	1300P
C	0	2	0G
D	0	1	1 1L
-1103051113000002/1			650007670006001H
Original			

## Comparison of the TIC-files – Manipulated & Original

Notice the “?” in the Manipulated version in contrast with the letters “H”, “I” & “P” in the original version. This one of the tell-tale signs of manipulation in this particular program. It may indicate that the system has not been correctly updated since the manipulation procedure.

**Want to see the next generation?**





# How do you find Sales suppression devices?

- 1. Stealth visits before audit
- 2. Set up a dummy store
- 3. Detailed examination of ECR printouts
- 4. Concentrate on “high risk” businesses
- 5. Audit lead from a different “rigorous audit”
- 6. Audit lead from another jurisdiction
- 7. Find and follow the corrupt installer
- 8. Work collaboratively with absent owners
- 9. Read the 250 Quebec cases in your spare time to learn the fact patterns ... and other stuff ...



# 1. Stealth visits before audit

- This is how Revenue Quebec found its first Zapper in 1997
- Auditor visited a restaurant before opening an audit, saved her receipts, and looked for records in the TIC files of the ECR.
- Requires some luck

## 2. Set up a dummy store

- This is what the Canadian Broadcasting Corporation did in Montreal.
- ECR salesman approached CBC and explained factory-installed Zappers
  - Company was subsidiary of a US ECR distribution business
  - Salesmen actually gave interviews to CBC
- Connecticut has reported the similar activity in complaints by “honest” ECR sales people

### 3. Detailed examination of ECR printouts

- Swedish approach
  - There is a Swedish ECR lab in the government's training facility that has a number of corrupted ECRs for practice & training of auditors
- South Carolina attorney looking for this kind of evidence in court case
- Requires knowledge of ECR programs – they are specific to ECR types not generic

## 4. Concentrate on “high risk” businesses

- Not:
  - If Mom or Pop runs the cash register
  - If publicly held enterprise
- Yes:
  - If multiple locations with a remote but actively engaged owner [La Shish (Detroit); Ronan (Australia)]
  - Employees are paid wages under the table
  - Unusual ratio of cash-credit transactions

## 5. Audit lead from a different “rigorous audit”

- Zappers leave a cash hoard that is difficult to dispose of – don’t stop with the initial audit, push to find the Zapper:
  - Audit shows that many employees are paid in cash [Dudok (Netherlands)]
  - Cash taken off shore- US Customs [Stew Leonard’s Dairy (CT)]
  - Cash sent to Hezbollah – Homeland Security [La Shish (MI)]
- Normal lavish lifestyle evidence [Aleef Garage (UK)]

## 6. Audit lead from another jurisdiction

- Ontario picks up leads from Quebec
- New York should do the same with Quebec
- Frequently the devices spread in ethnic communities that have business ties to jurisdictions where this fraud is common [Brazil; Venezuela; Quebec]
  - Austria & Germany found similar Zappers in 600 Chinese restaurants – started in Austria with a Chinese grad student in a technology school – Germany followed the Austrian lead on audits

## 7. Find and follow the corrupt installer

- Revenue Quebec uses search warrants against installers simultaneously with a search of a restaurant.
  - Dudok (Netherlands) installers are correcting the system during an IRS audit to hide data
  - Boutique programmers – makers of specialty cash register programs [Roy (Quebec)]

## 8. Work collaboratively with “absent” owners

- Absentee owners can be victims of the management company [Celine Dion (Quebec)].
- Franchise holders [McDonalds; Burger King; Duncan Donuts] that get a royalty per sale in the store [Cincinnati, Ohio (2007) – IRS]
- A business that hires too many computer savvy students could be a victim.



## 9. Read the 250 Quebec cases in your spare time to learn the fact patterns

- Revenue Quebec publishes summaries of all the ongoing cases on the web.

- Go to:

[http://www.revenu.gouv.qc.ca/eng/ministere/centre information/communiques/ev-fisc/2008/janvier.asp](http://www.revenu.gouv.qc.ca/eng/ministere/centre%20information/communiques/ev-fisc/2008/janvier.asp)

# 2008 Search Brings Up

- **Logicaïsse Computer Systems Ltd. in the sights of Revenue Quebec**
- **Montreal, March 12, 2008** - Revenue Quebec announced that it has executed yesterday, eight search warrants in the Laval, Montreal, Mascouche and Châteauguay on Logicaïsse computer systems Ltd. This company does business in the sale, rental and maintenance of cash registers.
- Revenue Quebec has reasonable grounds to believe that this company has designed and distributed a Camouffleur sales (commonly known *zapper*), used with RMS-Touch software, which is the exclusive distributor in Quebec, and it has enabled different companies, mainly restaurants, use this to hide Camouffleur sales to evade the payment of fees and taxes.
- Individuals and companies who have used the sales Camouffleur designed by Logicaïsse liable to prosecution in court. In this regard, recall that since June 2000, the Act respecting the Ministère du Revenu prohibits any person who is its tax records through a computer system or electronic device to use a function to alter the data recorded without preserving the original data, such as a Camouffleur sales. In addition, any person who helped someone to commit such an offense is liable to the same penalties as those imposed on persons who used a Camouffleur sales.
- Since June 13, 2006, it is also forbidden to develop, manufacture, install, sell, rent or make available to another person a function of a computer program or an electronic component which use is not permitted by law. Any person who has committed such an offense is punishable by a fine ranging from \$25, 000 to \$500,000.

# 2009 Search shows it is Ongoing

- Revenue Quebec searched the company computer systems Logicaïsse Ltd.
- **Montreal, July 21, 2009** - Revenue Quebec announced that it has executed, July 14, two search warrants at the headquarters of the company computer systems Logicaïsse Ltd., located in the Laval region. This company does business in the sale, rental and maintenance of cash registers.
- Revenue Quebec has reasonable grounds to believe that the company in question was designed and distributed a Camoufleur sales, commonly called *zapper*, used mainly in restaurants. It allowed restorers to use this Camoufleur to cover sales and thereby avoiding payment of fees and taxes.
- Since June 13, 2006, it is forbidden to develop, manufacture, install, sell, rent or make available to another person a function of a computer program or an electronic component whose 'use is not permitted by law. Any person who has committed such an offense is punishable by a fine ranging from \$25,000 to \$500,000. The Act on the Department of Revenue provides that in case of recidivism the fines can range from \$ 100, 000 to \$1,000,000 and the court may sentence the offender to imprisonment for not more than 2 years.
- In addition to the tax losses, tax evasion has negative repercussions in the midst of restoration, since it promotes unfair competition.
- To a question of fairness to the restaurant and all those who meet their tax obligations, the government intervenes to counter tax evasion and thus promote fair competition in the restaurant industry.

# So, Look up Logicaïsse

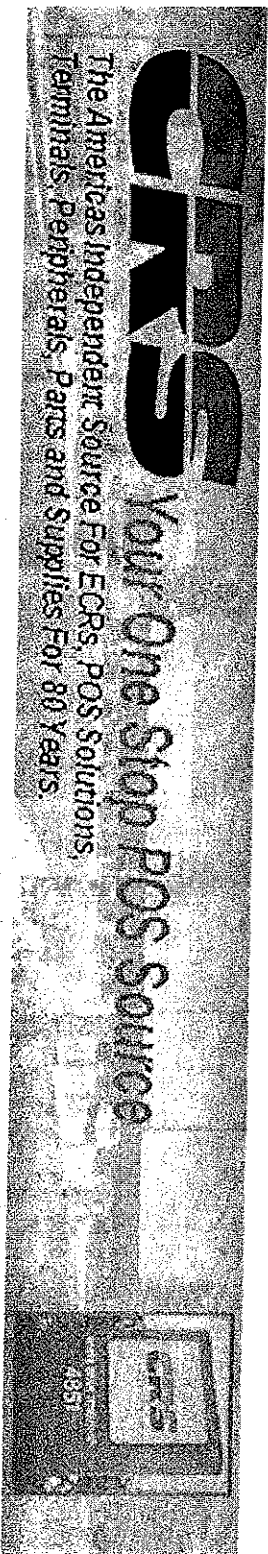
- [http://www.logicaïsse.com/html/english/logicaïsse/nos\\_partenaires.php](http://www.logicaïsse.com/html/english/logicaïsse/nos_partenaires.php)
- Logicaïsse
- **Our Partners**
- We are proud to have partnered with businesses throughout Quebec's major centers. Moreover, we hold exclusive distribution rights for eastern Canada of all CRS, Samsung and Sharp products.

CRS is at

<http://www.crs-usa.com/about.asp>



CRS-USA



CRS, Inc.

4851 White Bear Parkway

Saint Paul, Minnesota 55110-3325

## And CRS Makes ...

CRS, Inc. is a privately owned importer and wholesale distributor, founded in 1927. With decades of experience designing and marketing cash management products for retailers, ... Our customer base includes thousands of resellers and our successes have produced strong and stable vendor relationships.

Keeping pace with emerging technologies, our products are constantly evolving with new ways to provide the traditional benefits of the cash register: security, reliability, and information. Technology also provides new opportunities. With the advent of open architecture PC based point-of-sale systems, the CRS Peripherals and Parts Division has identified new markets and provides an array of POS terminals, PC workstations, scanners, printers, displays and other POS PC hardware.

# And now look up RMS-Touch

<http://www.rmstouch.com/ID202.htm>

- Adler Microsystems Corp., dba RMS-TOUCH, in privately owned, incorporated in 1986 in New Jersey. RMS-TOUCH headquarter is located in Fort Lee, about a mile north of the George Washington Bridge.
- 
- RMS-TOUCH was a pioneer in Restaurant Point Of Sale systems (POS), introducing in 1987 the first non proprietary, PC based restaurant touch screen Point Of Sale system running on a Novell Network. Since then, we have installed thousands of systems worldwide, on multiple PC based platforms, with many diverse hardware and software interfaces.
- 
- Our applications include RMS-TOUCH POS 32 Hospitality Point Of Sale software for bars and restaurants, RMS-Host Restaurant Waiting List with customer cell phone notification and RMS-Remote, our new Online Ordering system.
- 
- Thanks to our company's 100+ years combined experience in POS development, the RMS-Kiosk Application Suite is quickly becoming the leading customer pre-ordering solution for supermarkets.
- 
- RMS-TOUCH sells its applications through a nationwide dealer network. Major accounts are handled through our corporate office.
- 
- RMS-TOUCH is an IBM Business Partner and an NCR Solution Provider.

# Now, back to Logicaïsse

- Our Staff At Logicaïsse,
- we are proud of our dynamic, devoted and courteous personnel who are capable of meeting our clients' needs. Our team is made up of over 25 employees representing a wide range of expertise



# Logicaisse Client List (Web page)

- 1994 -- **2<sup>nd</sup> distributor in the world for Samsung products**  
Over 6000 active clients
- 1995 -- **1<sup>st</sup> distributor in the world for Samsung products**  
Set-up agreement for Dollarama franchises for the provinces of Quebec, Ontario and New Brunswick
- 1996 -- **2<sup>nd</sup> distributor in the world for Samsung products**  
Set-up agreement for Dollarama franchises for the provinces of Nova Scotia and Prince-Edward-Island
- 1997 -- Agreement for the set-up of all Lafleur restaurants [NOTE: Privately owned Quebecois "fast food"]
- 1998 -- **1<sup>st</sup> distributor in the world for Samsung products**  
Agreement for the set-up of Queues de castor [5 star restaurant in Old Montreal] and La Belle Province [restaurants]
- 1999 -- **1<sup>st</sup> distributor in the world for Samsung products**  
New office located at 3236 AUTOROUTE LAVAL OUEST
- 2000 -- **1<sup>st</sup> distributor in the world for Samsung products**  
Agreement for set-up of all Valentine fast food restaurants in the province of Quebec [NOTE: privately owned chain of over 100 restaurants in Quebec]
- 2001 -- **1<sup>st</sup> distributor in the world for Samsung products**  
Distribution agreement for the RMS software POS system for eastern part of Canada
- 2002 -- **1<sup>st</sup> distributor in the world for Samsung products**  
Agreement for the set-up of Pizza Land franchise [NOTE: Pizza Land is in NY]
- 2003 -- **1<sup>st</sup> distributor in the world for Samsung products**  
Agreement for installation of 80 Dollarama stores in Ontario [NOTE Dollarama has over 600 stores, headquartered in Montreal, with locations in NY and MA]  
Agreement for set-up of JAVA U franchises

# What do you do when you find them?

- Think beyond the audit:
  - Who installed it?
  - Who sold it?
  - Who is competing with this business locally?
- Penalize beyond the audit:
  - Make the sale, possession, distribution of a sales suppression device punishable
  - Make continuation of the business contingent on the installation of certified ECRs [business licensing requirements]
- Contact the marketplace:
  - Treat the fraud as the tip-of-the-iceberg – let the market know you are serious
  - Initiate contact with other jurisdictions to collaborate

# Last [unrelated] Questions

- 1. ROUNDING – we take tax collected and gross up to receipts ... is this OK?
- 2. NEW CUSTOMER – if there are prior credits and we are doing the returns, should we roll in the credits ... or should they be separate [SST issue ]?
- 3. SOL – for returns and for refunds
- Who should we ask?



# NCSL – ZAPPER HANDOUT

## States GDP (Purchase Power Parity)

State	GDP (in billions)	% of Quebec	Estimated Losses
<b>QUEBEC</b>	<b>166.9</b>		<b>\$425 million</b>
Alabama	108.3	65%	276
Alaska	24.9	15%	63
Arizona	132.7	80%	340
<b>California [1]</b>	<b>1,118.7</b>	<b>670%</b>	<b>2,847</b>
Colorado	140.2	84%	357
Connecticut	142.3	85%	361
Delaware	33.7	20%	85
District of Columbia	51.9	31%	132
<b>Florida [5]</b>	<b>413.9</b>	<b>248%</b>	<b>1,054</b>
Georgia	253.9	152%	372
Hawaii	39.4	24%	102
Idaho	31.0	19%	81
<b>Illinois [4]</b>	<b>422.2</b>	<b>253%</b>	<b>1,075</b>
Indiana	175.0	105%	446
Iowa	82.6	49%	208
Kansas	76.3	46%	195.5
Kentucky	106.9	64%	272
Louisiana	124.6	75%	319
Maine	31.9	19%	81
Maryland	163.3	98%	417
Massachusetts	239.4	143%	608
Michigan	289.8	174%	740
Minnesota	11.5	7%	30
Missouri	163.0	98%	417
Nebraska	51.4	31%	132
Nevada	63.9	38%	162
New Hampshire	41.0	25%	106
New Jersey	314.5	188%	799
New Mexico	48.9	29%	123
<b>New York [2]</b>	<b>706.6</b>	<b>423%</b>	<b>1,798</b>
North Carolina	235.0	141%	599
North Dakota	16.9	10%	43
Ohio	344.7	207%	880
Oklahoma	82.5	49%	208
Oregon	102.9	62%	264
Pennsylvania	362.7	217%	922

Rhode Island	30.3	18%	77
South Carolina	100.6	60%	255
South Dakota	20.8	12%	51
Tennessee	160.9	96%	408
<b>Texas [3]</b>	<b>641.3</b>	<b>384%</b>	<b>1,632</b>
Utah	58.6	35%	149
Vermont	16.1	10%	43
Virginia	226.6	136%	578
Washington	190.7	114%	485
Wisconsin	157.3	94%	400
Wyoming	16.4	10%	43
<b>TOTAL</b>			<b>20,840</b>

Demographia, *Regional Gross Domestic Product (GDP): Ranked North America, Europe, Japan & Oceania(Purchase Power Parity)* Wendell Cox Consultancy available at <http://www.demographia.com/db-intlppp-region.htm>

Sources: Estimated from US Department of Commerce, European Union, OECD, Statistics Canada, Australian Bureau of Statistics, New Zealand Bureau of Statistics, Japan Statistical Bureau.

NATIONAL RESTAURANT ASSOCIATION, 2009 RESTAURANT INDUSTRY FORECAST 3 "Adding it all up: **\$565.9 billion** in restaurant-industry sales in 2009."

### WHAT IS SALES SUPPRESSION (ZAPPER)?

**Electronic sales suppression software (zappers or phantom-ware)** is a program that can be installed in an electronic cash register or point-of-sale (POS) system that allows the user to manipulate the data captured by the register. After sales are captured during the day the user will run the program against the register file and delete selected transactions. The user can choose to delete a percentage of the transactions processed through the register or an amount. **This fraud is the same type of fraud and compliance problem that tax administrators have fought for years as cash businesses failed to account for all transactions and the tax collected on those transactions. Zappers, however, move this fraud into the digital world**

The first Zappers uncovered in Quebec were purchased over the internet for \$500 from an American firm (no longer in business). One of the first litigated Zapper cases in Quebec involved the Canadian sales subsidiary of an American ECR distributor in Montreal.

At the present time there are in excess of 250 litigated Zapper enforcement cases in Quebec. For example, one involves a chain of 28 Stratos restaurants (2003). All had Zappers. Press releases provide details on the aggregate tax and penalties for ten of the companies, which were \$1,816,070.90.